

CLAIMS

1. A method for providing a packet-switched network user with a service via the intelligent network, the method comprising the steps of receiving the network registration of a user in the packet network (2-

1), establishing a session for routing functionality of packets originating from and terminating at the user;

characterized by

10 forming for the session a control record (2-5), by which event management is controlled during the session and which has a functional connection to at least one service control function of an intelligent network service; and

15 defining at least one of the session events as an intelligent network event to the control record (2-5), the encounter of which causes the use of intelligent network control principles.

2. A method as claimed in claim 1, **characterized** by modelling the session by a state model.

3. A method as claimed in claim 1 ~~or 2~~, characterized by maintaining information on at least one intelligent network event in subscriber information;

searching the information from the register including subscriber information when forming the control record (2-2); and

adding the intelligent network events in the subscriber information as intelligent network events of the session (2-5).

25 4. A method as claimed in claim 1, ~~2 or 3~~, characterized by maintaining at least one intelligent network event in the node serving the user; and

adding the intelligent network events maintained in the node as intelligent network events of the session (2-5).

30 5. A method as claimed in ~~any one of the preceding claims,~~
characterized by defining the GPRS attach of the user as an intelligent
 network event of the control record (2-1).

6. A method as claimed in any one of the preceding claims, **characterized** by defining the PDP context activation and deactivation as intelligent network events of the control record (2-7, 2-21).

7. A method as claimed in claim 6, **characterized** by defining the PDP context modification as an intelligent network event of the control record.

8. A method as claimed in claim 6 ~~or 7~~, **characterized** by defining the packet routing as an intelligent network event of the control record.

9. A method as claimed in ~~any one of the preceding claims~~, **characterized** by

transmitting a message (401) to the service control function of the intelligent network in response to the encounter with the intelligent network event;

receiving (402) a message requesting a report from the intelligent network, which message includes at least one criterion and a condition relating to the criterion, after the fulfilment of which the report is transmitted;

maintaining a criterion counter;

initialising said counter (405); and

starting the monitoring, during which the following steps are repeated:

a) increasing (408) the counter in response to the transferred packet according to the criterion;

b) checking (410) whether the condition given to the criterion is fulfilled, and if the condition fulfils, transmitting the report to the service control function of the intelligent network (412).

10. A method as claimed in claim 9, **characterized** by said message received from the service control function of the intelligent network being a message requesting a periodical report; and initialising the counter (405) after transmitting of the report message, and repeating the monitoring steps.

11. A method as claimed in ~~any one of the preceding claims~~, **characterized** by transmitting the message to the service control function of the intelligent network (401) in response to the encounter with the intelligent network event;

receiving (502) a charging message from the intelligent network, which message includes charging criteria;

maintaining the counter;

forming for the PDP context a control record, by which the event management of the PDP context is controlled, which control record can be modelled by a state model and which has a functional connection to at least one service control function of an intelligent network service, and

5 by defining at least one of the PDP context events as an intelligent network event to the control record, which event causes the use of intelligent network control principles.

17. A method as claimed in claim 16, **characterized** by defining the PDP context activation and deactivation as intelligent network events of the control record (2-7, 2-21).

18. A method as claimed in claim 16 ~~or 17~~, **characterized** by defining the set-up of a logical and physical connection as an intelligent network event of the control record (2-11).

19. A packet network node (SGSN, GGSN) comprising
15 a connection part (CP) to transfer packets and set up a connection to the packet network; and

an application part (AP) to establish and maintain a session for routing functionality of the packets originating from and terminating at a user;

characterized in that

20 the application part (AP) is arranged to form a control record for the session in such a manner that at least one of the session events is defined in the control record as an intelligent network event, the encounter of which causes the use of intelligent network control principles;

25 the node further comprises session management means (BSM) for detecting the encounter with the intelligent network event;

the application part (AP) is arranged to use the intelligent network control principles in response to the encounter with the intelligent network event; and

30 the connection part (CP) is arranged to convey messages between the intelligent network and the application part.

20. A packet network node as claimed in claim 19, **characterized** in that

the application part (AP) is arranged to obtain the intelligent network events defined in the subscriber information; and

35 the session management means (BSM) are arranged to detect the encounter with the intelligent network events.

26

21. A packet network node as claimed in claim 19 ~~or 20,~~
characterized in that

the network node comprises a memory part (MP), in which at least one intelligent network event is defined; and

5 the session management means (BSM) are arranged to detect the
encounter with an intelligent network event.

22. A packet network node as claimed in claim 19, 20 or 21, **characterized** in that the application part (AP) is arranged to form a control record for the session and to use the intelligent network control principles in response to the GPRS attach of the user.

23. A packet network node as claimed in claim 19, ~~20 or 21,~~
characterized in that the application part (AP) is arranged to form a
control record for the session and to use the intelligent network control
principles in response to the PDP context activation of the user.

24. A packet network node as claimed in claim 19, ~~20, 21, 22 or 23,~~
characterized in that it is a serving support node of the packet radio
network (SGSN).

25. A packet network node as claimed in claim 19, ~~20, 21 or 22,~~
characterized in that it is a gateway support node of the packet radio
 network (GGSN).